



Docket No.: 826.1335C

#M/D
PP
5-20-03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Kensaku IMAI, et al.

Serial No. 09/785,269

Group Art Unit: 1631

Confirmation No. 2896

Filed: February 20, 2001

Examiner: John S. Brusca

For: METHOD AND APPARATUS FOR AUTOMATICALLY REMOVING VECTOR UNIT IN
DNA BASE SEQUENCE

RESPONSE

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Responsive to the January 9, 2003 Office Action, having a March 9, 2003 due date, reconsideration is respectfully requested based on the following amendments and remarks.

A Petition for a two-month extension of time until May 9, 2003 and a \$410.00 large entity fee are included herewith.

I. AMENDMENTS

A. In the Written Description (37 C.F.R. §1.121(b))

Please AMEND the Written Description as follows:

On page 4, the first full paragraph, please amend as follows.

A DNA normally exists in a double-stranded state as two complementary and anisotropic base sequences. In the two base sequences, the facing bases have a fixed relationship, and the adenine A faces the thymine T, while the guanine G faces the cytosine C. An example of a DNA double-strand is shown as follows:

PL

5' end ATGCATGCTAGCTAGCT 3' end (strand A) (SEQUENCE ID NO. 1)

D1
cont

||||| ||||| ||||| |||||

3' end TACGTACGATCGATCGA 5' end (strand B) (SEQUENCE ID NO. 2)

←

On page 4, second full paragraph, please amend as follows:

Strand B is complementary to strand A and is represented as a single strand as follows:

D2

5' end AGCTAGCTAGCATGCAT 3' end (strand B) (SEQUENCE ID NO. 3).

On page 41, first full paragraph, please amend as follows:

Then, in step S62, when the vector data base includes base sequences outside the multiple cloning site, a sequence containing the base sequence and the 5' side residual multiple cloning site 5MCS is defined as a side residual vector area 5VA. That is, when five base sequences are included to the 5' side of the 5' side retrieval key as shown in FIG. 17 (in this example, to the 5' side of the 5' side residual multiple cloning site), the five bases to the 5' side of the 5MCS are added to the 5MCS in defining the 5' side residual vector area 5VA in step S62. In FIG. 17, the 5VA is the base sequence GTGCCAAGCTT (SEQUENCE ID NO. 4). If only the base sequence in the multiple cloning site is included in the vector data base, then the 5VA is assumed to equal the 5MCS. However, since the data base normally includes the base sequences before and after the multiple cloning site, the homology check is effective as described below.

D3

Also, attached is a "Version With Markings to Show Changes Made", comprising a marked-up version of the changes made to the Written Description.